

Response After Final
Application No. 09/774,099
Attorney Docket No. 010093

REMARKS

Claims 1-8 are pending in the present application. No amendment has been proposed. It is respectfully submitted that this Response is fully responsive to the Office Action January 26, 2006.

Allowable Subject Matter:

Applicants gratefully acknowledge the indication in item 4 of the Action that claims 7 and 8 are allowable.

As to the Merits:

However, as to the merits of this case, the Examiner maintains the following rejection:
claims 1 - 6 stand rejected under 35 USC §103(a) as being unpatentable over Koike (of record). This rejection is respectfully traversed.

Claims 1- 4:

With regard to Applicants' argument that a fundamental difference between the present claimed invention and Koike is that the present invention uses a variable second threshold value in setting the horizontal image end signal (see e.g., page 41, lines 3 – 11), whereas in contrast Koike clearly indicates that the horizontal image start/end signals are determined based on the RGB data being larger than (for the start signal) or smaller than (for the end signal) a single

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predetermined threshold value (paragraphs 0038 and 0039), the Examiner fails to provide any type of meaningful response.

Instead, the Examiner merely reiterates the reliance on col. 6, line 48, col. 7, line 42 of Koike in page 8 of the Action and basically asserts that since the frequency of the sampling clock is adjustable or variable based on the difference between the horizontal image start and end count values, then the threshold value for determining the horizontal image end signal is also adjustable.

However, it is respectfully submitted that the Examiner's position lacks any type of merit, since the predetermined threshold value for determining the horizontal image end signal is the same even if the frequency of the sampling clock is adjusted. That is, there is absolutely no change in the value used for determining the horizontal image end signal when the frequency of the sampling clock is adjusted, since this value remains constant at the predetermined threshold value, as explicitly disclosed in paragraph [0038] of Koike.

That is, in claims 1-4, the threshold value used for detecting the horizontal video end position of-the input video signal (the second threshold value) is controlled for each vertical period, depending on the level of the video data at the horizontal video end position detected within the verified period.

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Specifically, in claims 1-4, the threshold value for detecting the horizontal video end position of the input video signal (the second threshold value) is variable, while in Koike it is fixed.

In claims 1-4, the second threshold value is controlled in that way. Therefore, as described on page 40, line 22 to page 41, line 11 of the specification, and as shown in Fig. 4, the second threshold value need not be set in conformity with a case where the input video signal is a signal having a low luminance, and can be set a large value. As a result, horizontal video effective periods L1 and L2 which are actually detected (see Fig. 4) are values closer to the theoretical value L in the horizontal video effective period than that in the conventional example (Koike) (see Fig. 5).

Accordingly, it is respectfully submitted that Koike fails to disclose or fairly suggest the features of the present claimed invention concerning a *horizontal video end position detection means for detecting a horizontal video end position of the video data outputted from the analog-to-digital converter on the basis of a variable second threshold value; ...*

threshold value control means for controlling, for each vertical period, the variable second threshold value depending on the level of the video data at the horizontal video end position detected within the vertical period.

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Moreover, the Examiner's assertion in lines 13-16 of page 4 of the Action that the disclosure in col. 9, lines 51-col. 10, line 21 of Koike reads on the claimed threshold value control means also lacks any merit, since, as discussed above, the predetermined threshold value for determining the horizontal image end signal is the same even if the frequency of the sampling clock is adjusted. In other words, there is absolutely no need to include a threshold value control means in the device of Koike, since the threshold values are predetermined and do not change.

Accordingly, it is submitted that the features of the present claimed noted above would not have been obvious to one of ordinary skill in the art based on the teachings of Koike.

Independent Claims 5 and 6:

Independent claim 5 calls for *judgment means for judging for each field whether or not the width of a region where input video exists is smaller than the number of horizontal effective pixels on the basis of the result of the calculation by the calculation means; and means for stopping, while the width of the region where the input video exists is being judged to be smaller than the number of horizontal effective pixels, a frequency adjustment operation based on the number of sampling clocks found in the field.* Independent claim 6 includes similar features.

In response to Applicants' argument that Koike fails to even addresses a situation involving a narrow video, since the behaviour of the delay data generation unit stopping the delay

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control and issuing an instruction to terminate detection of the total of dots to the up-down counter (in Koike) has nothing to do with stopping frequency adjustment for narrow videos, the Examiner sets forth the following arguments on page 9 of the Action:

As for the claimed judgement means Koike clearly teaches a comparator for determining for each field if the width of the region where input video exists is smaller than the number of horizontal effective pixels (1024, 1025) on the basis of the result of the calculation by the subtraction (153) as explained above. Where it is understood that the width of a region where input video exists corresponds to a display period, which would exist between the horizontal start and end position, which is taught by Koike.

Further with reference to the means for stopping, Koike also clear teaches that the when the total of delay values becomes a predetermined value which is not less than a value corresponding to the one sampling clock, the delay data generation unit (62) stops delay control, and sends an instruction to terminate detection of the total of dots to the up-down counter (see column 10, lines 22-32). Therefore Koike teaches the claimed judgment means and means for stopping as explained above.

However, it is respectfully submitted that the judgement of the comparator 154 concerning whether the results of the subtraction sent from the subtractor 153 coincide with the number of horizontal effective dots, see paragraph [0075] of Koike, fails to constitute a determination of whether or not the width of a region where input video exists is smaller than the number of horizontal effective pixels, as called for in claim 5.

Moreover, even if, assuming *arguendo*, that the comparator 154 does provide a judgement regarding whether or not the width of a region where input video exists is smaller than the number of horizontal effective pixels, it is respectfully submitted that Koike clearly discloses

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that the comparator 154 brings a second judgement signal into an H level, paragraph [0077] when the results of the subtraction are smaller than “1024” and when the results of the subtraction in the subtractor 153 are smaller than “1024”, the count value of the up-down counter 155 increases by one, so that the frequency division ratio of the frequency divider 14 also increases by one; such that as a result, the frequency of the sampling clocks outputted from the VCO 143 increases, see paragraph [0084].

In other words, when the number of sampling clocks is less than “1024”, that is, assuming that this indicates that the width of a region where input video exists is smaller than the number of horizontal effective pixels, it is clearly disclosed in Koike that the frequency of the sampling clocks is increased and thereby adjusted, which is complete contrast to the present claimed invention.

Furthermore, it is respectfully submitted that the portion of Koike relied upon by the Examiner, i.e., col. 10, lines 22-32, concerns the situation when the first judgement signal is brought into an L level, when the results of the subtraction in the subtractor 53 coincide with “1024” or ‘1025,’ that is, when the width of a region where the input video exists is the same as the number of horizontal effective pixels.

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The invention of claims 5 and 6 includes “the means for stopping, while the width of the region where the input video exists is being judged to be smaller than the number of horizontal effective pixels, a frequency adjustment operation based on the number of sampling clocks found in the field”.

In contrast Koike does not have this means.

Since the invention of claims 5 and 6 comprises this “means for stopping …”, it is possible to suspend the frequency adjustment operation while video whose horizontal image start and end positions are difficult to detect, especially narrow video as generally seen on the screen saver image, is being inputted. This prevents erroneous operation.

Accordingly, it is respectfully submitted that Koike clearly fails to disclose or fairly suggest the features of the present claimed invention concerning *judgment means for judging for each field whether or not the width of a region where input video exists is smaller than the number of horizontal effective pixels on the basis of the result of the calculation by the calculation means; and means for stopping, while the width of the region where the input video exists is being judged to be smaller than the number of horizontal effective pixels, a frequency adjustment operation based on the number of sampling clocks found in the field.*

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In view of the aforementioned remarks, Applicants submit that that the claims are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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